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Patent Atty. Docket No. GEMS8081.187

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Hurd, Ralph E.

Serial No.

10/708,356

Filing Date

2/26/2004

Title

METHOD AND SYSTEM OF MAPPING

OXYGEN CONCENTRATION ACROSS A

REGION-OF-INTEREST

Group Art No.

2862

Examining Attorney

Unknown

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97/99

Dear Sir:

In compliance with Applicant's duty of disclosure as set forth in 37 C.F.R. §1.56, listed on the attached equivalent to Form PTO-1449 are those patents, publications, and other information known to Applicant which may be considered material to the patentability of the claims of the above-captioned application. One copy of each reference is attached.

Inventor: Hurd, Ralph E. S/N: 10/708,356

Applicant respectfully requests that the documents listed on the attached equivalent to Form PTO-1449 be considered by the Examiner, that the references be made of record in the present application, and that an initialed copy of the duplicate equivalent to Form PTO-1449 be returned to the undersigned in accordance with MPEP 609.

Respectfully, submitted,

J. Mark Wilkinson
Registration No. 48,865
Direct Dial 262-376-5016
jmw@zpspatents.com

Date: <u>6/1</u>, 2004 Atty. Docket No.: GEMS8081.187

P.O. ADDRESS:

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	Substitute	for form 1449A/PTO			Complete if Known			
	_				Application Number	10/708,356		
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		EMENT BY			First Named Inventor	Hurd, Ralph E.		
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		use as many sheets a	as neces	ssary)	Examiner Name	Unknown		
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U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	U.S. Patent Document Kind Code ² Number (<i>if known</i>)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US 2003/016061	A1	Van Zijl et al.	08-28-2003		
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				FOREIGN	PATENT DOCUMENTS			
Examiner Initials*	Cite No.1	Office ³	Foreign Patent Doc	ment Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵
		wo	03/049604	A2	The Johns Hopkins University School of Medicine	06-19-2003		
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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Substitu	ute for form 1449B/P	то		Complete if Known		
				Application Number	10/708,356	
INF	ORMATION	DISC	CLOSURE	Filing Date	2/26/2004	
STA	TEMENT B	Y AF	PLICANT	First Named Inventor	Hurd, Ralph E.	
				Group Art Unit	2862	
	(use as many sheet	ts as ne	ecessary)	Examiner Name	Unknown	
Sheet 2 of 2		Attorney Docket Number	GEMS8081.187			

OTHER PRIOR	R ART -	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		KREUTZER ET AL., "1H-nuclear magnetic resonance deoxymyoglobin signal as indicator of intracellular oxygenation in myocardium," <i>Am J Physiol.</i> (1991), p. H2091–97, 0363-6135/91.	
		KREUTZER ET AL., "Observing the Deoxy Hemoglobin Signal in Human Muscle as an Index of Vascular pO ₂ ," <i>Proc. Int. Soc. Magn. Reson. Med.</i> 77 (1998).	
		LUKIN ET AL., "Quaternary structure of hemoglobin in solution," PNAS (2003), p. 517–520, vol. 100, no. 2, available at www.pnas.org/cgi/doi/10.1073/pnas.232715799 .	
		MIHAILESCU ET AL., "A signature of the T → R transition in human hemoglobin." <i>PNAS</i> (2001), p. 3773–3777, vol. 98, no. 7, available at www.pnas.org/cgi/doi/10.1073/pnas.071493598 .	
		MOLE ET AL., "Myoglobin desaturation with exercise intensity in human gastrocnemius muscle, "Am J Physiol. (1999), p. R173–80, 0363-6119/99.	
		SIMPLACEANU ET AL., "Chain-Selective Isotopic Labeling for NMR Studies of Large Multimeric Proteins: Application to Hemoglobin." <i>Biophysical Journal</i> (2000), p. 1146–1154, Vol. 79(2).	
		TRAN ET AL., "Comparative analysis of NMR and NIRS measurements of intracellular PO ₂ in human skeletal muscle." <i>Am J Physiol</i> (1999), p. R1682–1690, 0363-6119/99.	
		TRAN ET AL., "Spatial distribution of deoxymyoglobin in human muscle: an index of local tissue oxygenation." NMR Biomed. (1999;12:26–30), John Wiley & Sons, Ltd.	
		ZHOU ET AL., "Amide Proton Transfer Contrast for Imaging of Brain Tumors," <i>Proc. ISMRM</i> 11 (2003), p. 42.	
		ZHOU ET AL., "Using the amide proton signals of intracellular proteins and peptides to detect pH effects in MRI," <i>Nature Medicine</i> (2003), p. 1085–90, vol. 9, no. 8.	
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Examiner	Date
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